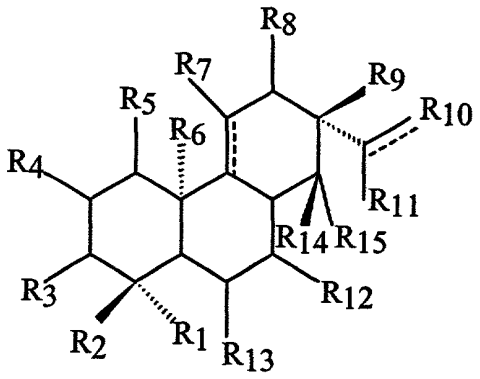
WHAT IS CLAIMED IS:

1. A compound having the following chemical structure:



wherein:

if any R_3-R_5, R_7, R_8, R_{11}-R_{15} is not hydrogen, R_2 or R_6 or R_9 is not methyl, or R_{10} is not CH_2, then R_1 is selected from the group consisting of hydrogen, a halogen, COOH, C_1-C_{12} carboxylic acids, C_1-C_{12} acyl halides, C_1-C_{12} acyl residues, C_1-C_{12} esters, C_1-C_{12} secondary amides, (C_1-C_{12})(C_1-C_{12}) tertiary amides, C_1-C_{12} alcohols, (C_1-C_{12})(C_1-C_{12}) ethers, C_1-C_{12} alkyls, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyls, C_2-C_{12} substituted alkenyls, and C_5-C_{12} aryls; but

if all R_3-R_5, R_7, R_8, R_{11}-R_{13} are hydrogen, R_2, R_6, and R_9 are each methyl, and R_{10} is CH_2, then R_1 is selected from hydrogen, a halogen, C_1-C_{12} carboxylic acids, C_1-C_{12} acyl halides, C_1-C_{12} acyl residues, C_2-C_{12} esters, C_2-C_{12} secondary amides, (C_1-C_{12})(C_1-C_{12}) tertiary amides, C_2-C_{12} alcohols, (C_1-C_{12})(C_1-C_{12}) ethers other than methyl-acetyl ether, C_2-C_{12} alkyls, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyls, C_2-C_{12} substituted alkenyls, and C_2-C_{12} aryls;

R_2 and R_9 are each separately selected from hydrogen, a halogen, C_1-C_{12} alkyl, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyl, C_2-C_{12} substituted alkenyl, C_2 - C_{12} alkynyl, C_1-C_{12} alcohol, C_1-C_{12} acyl, and C_5-C_{12} aryl;

R_3-R_5, R_7, R_8, and R_{11}-R_{13} are each separately selected from hydrogen, a halogen, C_1-C_{12} alkyl, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyl, C_2-C_{12} substituted alkenyl, C_2-C_{12} alkynyl, and C_5-C_{12} aryl;

R_6 is selected from hydrogen, a halogen, C_1-C_{12} alkyl, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyl, C_2-C_{12} substituted alkenyl, and C_2-C_{12} alkynyl;

R_{10} is selected from hydrogen, a halogen, CH_2, C_1-C_6 alkyl, C_1-C_6 substituted alkyl, C_2-C_6 alkenyl, C_2-C_6 substituted alkenyl, C_1-C_{12} alcohol, and C_5-C_{12} aryl; and

R_{14} and R_{15} are separately selected from hydrogen, a halogen, CH_2, C_1-C_6 alkyl, C_1-C_6 substituted alkyl, C_2-C_6 alkenyl, C_2-C_6 substituted alkenyl, C_1-C_6 alcohol, and C_5-C_6 aryl;

wherein the compound includes the prodrug esters of the above compounds, and the acid-addition salts thereof.

2. The compound of Claim 1, wherein:

R_1 is selected from hydrogen, a halogen, C_1-C_{12} carboxylic acids, C_1-C_{12} acyl halides, C_1-C_{12} acyl residues, C_2-C_{12} esters, C_2-C_{12} secondary amides, (C_1-C_{12})(C_1-C_{12}) tertiary amides, C_2-C_{12} alcohols, (C_1-C_{12})(C_1-C_{12}) ethers other than methyl-acetyl ether, C_2-C_{12} alkyls, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyls, C_2-C_{12} substituted alkenyls, and C_2-C_{12} aryls.

3. The compound of Claim 1, wherein:

R_1 is selected from the group consisting of hydrogen, a halogen, COOH, C_1-C_{12} carboxylic acids, C_1-C_{12} acyl halides, C_1-C_{12} acyl residues, C_1-C_{12} esters, C_1-C_{12} secondary amides, (C_1-C_{12})(C_1-C_{12}) tertiary amides, C_1-C_{12} alcohols, (C_1-C_{12})(C_1-C_{12}) ethers, C_1-C_{12} alkyls, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyls, C_2-C_{12} substituted alkenyls, and C_5-C_{12} aryls.

4. The compound of Claim 1, wherein R_1 is selected from the group consisting of C_2-C_{12} esters and C_1-C_{12} acyl residues.

5. The compound of Claim 1, wherein R_1 is selected from the group consisting of C_2-C_6 esters.

6. The compound of Claim 1, wherein R_{10} is selected from the group consisting of C_2-C_6 alkyl groups and C_2-C_6 alkenyl groups.

7. The compound of Claim 1, wherein R_3-R_5, R_7, R_8, R_{11}-R_{15} is each hydrogen.

8. The compound of Claim 1, wherein R_3-R_5, R_7, R_8, R_{11}-R_{15} is each hydrogen; R_2, R_6, and R_9 are each methyl; and R_{10} is CH_2.

9. The compound of Claim 1, wherein R_{15} is hydrogen, and R_{14} is selected from hydrogen, a halogen, C_2-C_6 alcohols, C_2-C_6 alkyls, C_1-C_6 substituted alkyls, C_2-C_6 alkenyls, C_2-C_6 substituted alkenyls, and C_5-C_6 aryls.

10. A method of treating a disease condition selected from the group consisting of inflammation, tuberculous pleurisy, rheumatoid pleurisy, cancer, cardiovascular disease, skin redness, diabetes, transplant rejection, otitis media (inner ear infection), sinusitis, and viral infection comprising:

identifying an animal with said disease condition; and

contacting a compound to living tissue of said animal, wherein the compound is the compound of Claim 1.

11. The method of Claim 10, wherein the compound is the compound of Claim 2.

12. The method of Claim 10, wherein the compound is the compound of Claim 3.

13. The method of Claim 10, wherein the compound is the compound of Claim 4.

14. The method of Claim 10, wherein the compound is the compound of Claim 5.

15. The method of Claim 10, wherein the compound is the compound of Claim 6.

16. The method of Claim 10, wherein the compound is the compound of Claim 7.

17. The method of Claim 10, wherein the compound is the compound of Claim 8.

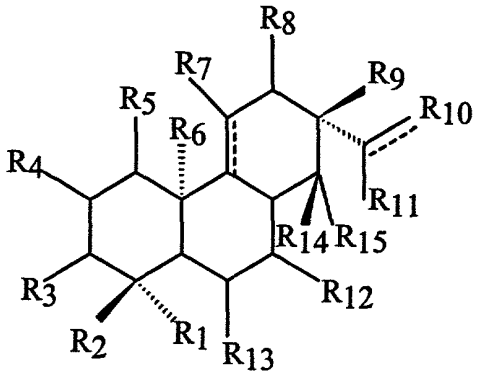
18. The method of Claim 10, wherein the compound is the compound of Claim 9.

19. A method of treating a disease condition selected from the group consisting of tuberculous pleurisy, rheumatoid pleurisy, cancer, cardiovascular disease, skin redness, diabetes, transplant rejection, otitis media (inner ear infection), sinusitis, and viral infection comprising:

identifying an animal with said disease condition; and

contacting a compound selected from (a) acanthoic acid, (b) (-)-pimara-9(11), 15-dien-19-ol, (c) (-)-pimara-9(11), 15-dien-19-oic acid, (d) (-)-pimara-9(11), 15-dien-19-ol 19-acetate, (e) (-)pimara-9(11), 15-diene, and (f) the methyl ester analog of acanthoic acid, to living tissue of said animal.

20. A method of making a synthetic compound having the following chemical structure:



wherein:

R_1 is selected from the group consisting of hydrogen, a halogen, COOH, C_1-C_{12} carboxylic acids, C_1-C_{12} acyl halides, C_1-C_{12} acyl residues, C_1-C_{12} esters, C_1-C_{12} secondary amides, (C_1-C_{12})(C_1-C_{12}) tertiary amides, C_1-C_{12} alcohols, (C_1-C_{12})(C_1-C_{12}) ethers, C_1-C_{12} alkyls, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyls, C_2-C_{12} substituted alkenyls, and C_5-C_{12} aryls;

R_2 and R_9 are each separately selected from hydrogen, a halogen, C_1-C_{12} alkyl, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyl, C_2-C_{12} substituted alkenyl, C_2 - C_{12} alkynyl, C_1-C_{12} alcohol, C_1-C_{12} acyl, and C_5-C_{12} aryl;

R_3-R_5, R_7, R_8, and R_{11}-R_{13} are each separately selected from hydrogen, a halogen, C_1-C_{12} alkyl, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyl, C_2-C_{12} substituted alkenyl, C_2-C_{12} alkynyl, and C_5-C_{12} aryl;

R_6 is selected from hydrogen, a halogen, C_1-C_{12} alkyl, C_1-C_{12} substituted alkyls, C_2-C_{12} alkenyl, C_2-C_{12} substituted alkenyl, and C_2-C_{12} alkynyl;

R_{10} is selected from hydrogen, a halogen, CH_2, C_1-C_6 alkyl, C_1-C_6 substituted alkyl, C_2-C_6 alkenyl, C_2-C_6 substituted alkenyl, C_1-C_{12} alcohol, and C_5-C_{12} aryl; and

R_{14} and R_{15} are separately selected from hydrogen, a halogen, CH_2, C_1-C_6 alkyl, C_1-C_6 substituted alkyl, C_2-C_6 alkenyl, C_2-C_6 substituted alkenyl, C_1-C_6 alcohol, and C_5-C_6 aryl

wherein the compound includes the prodrug esters of the above compounds, and the acid-addition salts thereof;

comprising the steps of:

performing a Diels-Alder reaction reacting a diene having two or more rings with a dienophile compound to yield a resultant compound have three of more rings; and

yielding the synthetic compound.